Meridian 1

Network Queuing

Description

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About this document

Reference list

The following are the references in this section:

- *Basic and Network Alternate Route Selection description (553-2751-100)*

This Nortel Networks Publication describes the queuing features and options that are available to Meridian 1 systems that operate in a private network environment. The queuing features are as follows:

— Off-Hook Queuing (OHQ)

— Call-Back Queuing (CBQ)

— Coordinated Call-Back Queuing (CCBQ)

— Call-Back Queuing to Conventional Mains (CBQCM)

Customer benefits from the queuing features include increased trunk group efficiency, facility cost-savings, and user convenience through the elimination of numerous redialing attempts.

A private network consists of one or more of the following types of Meridian 1's.

Meridian 1 Node

A Meridian 1 Node is a Meridian 1 that is equipped with either the Basic Alternate Route Selection (BARS) or Network Alternate Route Selection (NARS) software feature packages. BARS and NARS features are described in *Basic and Network Alternate Route Selection description (553-2751-100).*

Meridian 1 Main

A Meridian 1 Main is a Meridian 1 that is connected by means of tie trunks to a Meridian 1 Node and is equipped with the Network Signaling (NSIG) and Network Class of Service (NCOS) software packages. A Meridian 1 Main can be connected to only one Meridian 1 Node. A Meridian 1 Main may also be equipped with the Basic Alternate Route Selection (BARS) and Off-Hook Queuing (OHQ) features.

Conventional Main

A Conventional Main is a Meridian 1 that is connected by means of tie trunks to a Meridian 1 Node and is not equipped with any network-related features.

> ***Note:*** The information presented in this document assumes that the reader is familiar with the terminology and concepts of the Alternate Route Selection capabilities as described in *Basic and Network Alternate Route Selection description (553-2751-100).*

Off-Hook Queuing

Reference list

The following are the references in this section:

- *Traffic measurement formats and output (553-2001-450)*

Off-Hook Queuing (OHQ) is a software feature that can be equipped at a Meridian 1 Node and/or a Meridian 1 Main. The feature enables a call originator to remain off-hook for a short time (this length of time is customer programmable) until a network facility for call completion becomes available at the Node or the Main.

Off-Hook Queuing

Network calls may be placed in an OHQ mode if all trunk routes (entries) in the initial route set of a route list (see Note) are busy and the following criteria are met:

— At least one of the trunk routes in the initial route set of a route list is defined as being eligible for OHQ.

— The Network Class of Service (NCOS) of the call originator (at a Node or a Main) is defined to permit OHQ.

— The incoming trunk group at the Node or the Main is defined in software to permit OHQ for incoming calls.

— The Traveling Class Mark (TCM) received at the Node from an Electronic Tie Network (ETN) switch is compatible with a Facility Restriction Level (FRL) that is defined to permit OHQ.

— The Traveling Class of Service (TCOS) received at the Node from another Node is compatible with an FRL that is defined to permit OHQ.

— The probability that the call will timeout in the OHQ before a trunk becomes available is below a specific threshold.

— The OHQ feature is enabled for the customer.

Note: A Meridian 1-defined initial set "marker" determines which route list entries are in the initial route set. Typically, the initial route set contains the cheaper routes to a particular destination. The remaining routes in the route list (if any) comprise the extended route set and are usually the more expensive routes to the destination. Only routes in the initial route set should be defined to allow OHQ. OHQ will not be offered by routes in the extended route set even if they are defined to allow OHQ.

Calls that do not meet the preceding requirements for OHQ eligibility may be offered Call-Back Queuing (CBQ) at this point.

Off-Hook Queuing availability

The OHQ software performs an "availability" test to prevent calls from entering the OHQ when there is a high probability that the call will timeout before a trunk becomes available. The following procedure is used for this test:

— For each trunk route, a counter is maintained that reflects the current number of calls with the maximum queue priority of 3 queued against it. This includes all calls in OHQ and the Call-Back Queuing (CBQ) and Ring Again (RGA) calls that are currently at priority 3.

— Each trunk route has a threshold value that indicates the maximum number of priority 3 calls that can be queued against it before OHQ timeout becomes a high probability. Before a call is placed in the OHQ, the current queue count is compared with the threshold value for each eligible trunk route in the initial set of routes. If at least one of the trunk routes has a count less than or equal to the threshold value, the call is allowed to perform OHQ against all OHQ eligible routes.

The Off-Hook Queuing offer

If all eligibility and availability checks are successful, the call originator is given a distinctive OHQ offer tone (a 1-second burst of 440 Hz tone) when the call enters the OHQ. The call originator either accepts the OHQ offer by remaining off-hook, or declines the offer by going on-hook.

OHQ calls are placed in a priority-ordered queue with all other calls waiting for trunks. OHQ calls are assigned maximum priority (3) because other network facilities may be held while the call is queued. A timer with an initial value equal to the software-defined OHQ time limit is started to limit the duration of the OHQ. (The OHQ time limit is service changeable within the range of 2 to 60 seconds.)

The queue is examined whenever a trunk becomes idle in a trunk route on which one or more calls are queued. If a call is found that can be terminated on an idle trunk, the available trunk is seized and the call terminated.

If the OHQ timer expires before the call can be terminated, the call is removed from the OHQ. At this time, the remaining eligible routes in the route list (the extended set) are examined and the call is either terminated or given standard blocking treatment if no facilities are available. (CBQ will not be offered at this point, since OHQ was already offered.) Expensive Route Warning Tone (ERWT) is not given to calls that have been queued, even if terminated on expensive facilities.

OHQ can be offered to call originators located at a Node, Main, Conventional Main, or Electronic Tie Network (ETN) switch. Also, as a call progresses through the network, OHQ can be offered to the call originator from any of the Nodes or Mains that are used to process the call (that is, OHQ can be offered more than once for a given call).

Off-Hook Queuing traffic measurements

Traffic measurement data that is related to usage of the OHQ feature is accumulated at a Node or a Main that is equipped with the Network Traffic (NTRF) feature. Data for OHQ usage is available in *Traffic measurement formats and output (553-2001-450).*

Routing measurements (TFN001)

Routing measurements (TFN001) are available at a Node or a Main. They reflect on a route list basis the number of calls placed in the OHQ, the average time that a call waited in the OHQ, and the number of calls abandoned while in the OHQ.

Network Class of Service measurements (TFN002)

Network Class of Service (NCOS) measurements (TFN002) are available at a Node or a Main. They reflect on an NCOS basis the number of calls placed in the OHQ and the average time that a call waited in the OHQ.

Incoming trunk group measurements (TFN003)

Incoming trunk group measurements (TFN003) are available at a Node. (They are also available at a Main if the OHQ feature is equipped and some incoming trunk groups are defined as OHQ eligible.) These measurements reflect on an incoming-trunk or two-way trunk group basis the number of calls placed in the OHQ and the average time that a call waited in the OHQ.

Feature interactions

The OHQ feature has the following interactions with existing Meridian 1 features.

Call modification

Station users are not allowed to activate call modification features (Hold, Call Transfer, or Conference) while waiting in the OHQ. A switchhook flash that is used to activate features from 500/2500 sets is ignored. Similarly, the operation of SL-1 or digital set feature keys is ignored.

Camp-On, Call Waiting

If the attendant extends a call to a station that is in the OHQ, the Call Waiting tone is not offered to the station. If the attendant releases, the call is camped-on the OHQ station, but no warning tone is given. When the Camp-On call is recalled to the attendant console, the attendant can repeat the Camp-On procedure. Once the OHQ call is in an established state, the Camp-On tone is provided.

Attendant functions

— The attendant cannot barge in during trunk seizure for OHQ calls.

— If the attendant extends a network call for a station user and the call is offered OHQ, the attendant must inform the caller of the OHQ offer before releasing from the call.

— The attendant is not allowed to operate the release key or another loop key if the source call is in conference and the destination call is in the OHQ. Operation of the release destination key is permitted, however, and causes the OHQ call to be abandoned.

Call-Back Queuing

Reference list

The following are the references in this section:

- *Traffic measurement formats and output (553-2001-450)*
- *X11 features and services (553-3001-306)*

Call-Back Queuing (CBQ) is a Node feature that provides queuing for network calls that encounter busy or blocked facilities at the Node. CBQ enables the calling party to go on-hook after activation of the Ring Again (RGA) feature [see *X11 features and services (553-3001-306)*] and receive a call-back from a Node when a network facility becomes available.

The CBQ feature is available only to stations located at a Node. Unlike OHQ, CBQ is offered only at the originating Node. Access to CBQ is accomplished through the existing RGA feature.

Call-Back Queuing options

Two options for CBQ eligibility are defined by the call originator's Network Class of Service (NCOS). The first option, CBQ(i), means that the CBQ may be offered after only the initial route set of a route list has been examined for an available route. The second option, CBQ(a), means that CBQ may be offered after both the initial and extended (in other words, all) route sets of a route list have been examined. In either case, a call that is offered CBQ is queued initially against only the initial route set.

Call-Back Queuing eligibility

Before offering CBQ to a call originator, the following eligibility tests are performed:

— At least one of the routes in the initial route set is defined as CBQ eligible.

— The user's NCOS is defined as permitting CBQ—either CBQ(i) or CBQ(a).

— The call is not eligible for OHQ. Calls that are eligible for both OHQ and CBQ will be offered OHQ.

— The user's telephone is allowed access to the Ring Again (RGA) feature and does not have another CBQ or RGA call already in the queue.

— The CBQ feature is enabled for this customer.

CBQ(i) eligibility

For call originations by a caller defined as CBQ(i) eligible, the system searches the initial route set for an available route. If no available route is found, CBQ is offered to the caller, subject to the CBQ(a) eligibility tests.

CBQ(a) eligibility

For call originations by a caller defined as CBQ(a) eligible, the system examines the initial route set for an available route. If no available route is found, the extended route set is then searched for an available route. If an available route is not found in the extended set, then CBQ is offered, subject to the CBQ eligibility tests. However, if an available route in the extended route set is found that is designated as expensive, and the user's NCOS allows Expensive Route Warning Tone (ERWT), the tone is given and the system delays terminating the call. During this delay the user has the following options:

— Refusing the expensive route by abandoning the call.

— Waiting, and allowing the call to complete over the expensive route.

— Activating the RGA feature (by using the feature key or access code) to place the call in the CBQ. The user must be CBQ(a) eligible; otherwise, the operation of the RGA feature is ignored.

Call-Back Queuing offer

The CBQ offer consists of an optional recorded announcement followed by an overflow tone. If the station user wants to accept the CBQ offer, the RGA must be activated within 30 seconds. RGA activation follows present feature operation for SL-1 or digital and 500/2500 sets [see *X11 features and services (553-3001-306)*]. The station user can refuse the CBQ offer by going on-hook. If the station user neither accepts nor refuses the CBQ offer within 30 seconds, the call is force-disconnected.

CBQ calls are placed in a priority-ordered trunk queue (together with OHQ calls, if any) with a starting priority and maximum priority defined by the call originator's NCOS. At the same time, two timers are started—a queue promotion timer and a route advance timer—each with values defined through the originator's NCOS. At intervals defined by the queue promotion timer, the priority of the call is incremented until it reaches its maximum priority. Each time the call priority is incremented, its position in the CBQ is advanced. If the route advance timer reaches its maximum value before the call can be terminated on a route in the initial set, the extended set or route is added to the routes that the call is currently queued against.

Expensive Route Warning Tone (ERWT) is not given to calls that have been queued, even if terminated on expensive facilities. Unless canceled by the call originator, CBQ calls remain in the queue until they have been offered a trunk; there is no time limit on CBQ calls.

Call-Back Queuing callback

When a trunk becomes available for a CBQ call, it is seized to prevent incoming originations during the CBQ call-back period. The outpulsing of digits (either those originally dialed by the user or those required as a result of digit manipulation) is started at a slow, fixed rate. The number of digits that are outpulsed determines how long the trunk can be held while CBQ call-back is being offered to the originating station. The system computes this time by allowing 10 seconds before the first digit is outpulsed at 2.56 seconds between subsequent digits.

The originator of the call is alerted to the CBQ call-back either by the buzzing and winking tone of the RGA feature lamp (the SL-1 or a digital set) or by short bursts of ringing (the 500/2500 set). The set user must accept the call-back within the computed value of outpulse time or the service-changeable CBQ time limit of 10 to 30 seconds, whichever is less. A user with a 500/2500 set must accept the call-back within 6 seconds. Acceptance of the CBQ call-back is performed with present RGA operating procedures. (When a CBQ call-back is answered at a digit display set, the original dialed digits are displayed.) If the user does not answer the call-back within the time limit, the call is removed from the queue and discarded. If the user accepts the call-back within the time limit, the call is terminated. A CBQ call can be canceled by the originating station by means of the existing procedures for RGA cancellation.

Call-Back Queuing traffic measurements

Traffic measurement data related to the usage of the CBQ feature is accumulated at a Node or Main equipped with the Network Traffic (NTRF) feature. Data for CBQ usage is available in *Traffic measurement formats and output (553-2001-450).*

Routing measurements (TFN001)

Routing measurements (TFN001) are available at a Node or a Main. They reflect on a route-list basis the number of CBQ offers, the number of CBQ call-backs, the average time in the CBQ, and the number of CBQ cancellations.

Network Class of Service measurements (TFN002)

Network Class of Service measurements (TFN002) are available at a Node or a Main. They reflect on an NCOS-basis the number of CBQ calls and the average time in the CBQ.

Feature interactions

The CBQ feature interacts with the following features.

Barge-In, Force Disconnect

Between the time that a trunk is seized for a CBQ call and the user accepts the CBQ call-back, the trunk can be stolen by the attendant or force-disconnected through a service change. If this occurs, there is no guarantee that the call can be terminated when the user accepts the CBQ call-back. Under these circumstances, the call is treated like a new origination, and Network Alternate Route Selection/Basic Alternate Route Selection (NARS/BARS) is used to reattempt termination. This can result in the call being blocked and being offered CBQ a second time.

Hunting, Call Forward, multiple appearance DN

CBQ call-backs to stations at a Node are offered only to the originating station, regardless of the Hunting or Call Forward features that may be in effect. Other appearances of a station's Directory Number (DN) are not offered the call-back.

Attendant functions

Because the RGA feature is not supported at attendant consoles, CBQ is not offered to an attendant, regardless of the CBQ eligibility of the NCOS assigned to the attendant.

Coordinated Call-Back Queuing

Reference list

The following are the references in this section:

- *Traffic measurement formats and output (553-2001-450)*
- *Basic and Network Authorization Code description (553-2751-103)*

The Coordinated Call-Back Queuing (CCBQ) feature enables stations at a Meridian 1 Main to be offered CBQ when network calls are blocked at the serving Meridian 1 Node. When facilities become available at the Node, the call originator at the Main is alerted by a call-back from the Node. (This feature requires that the Main and the associated Node be equipped with the network signaling feature).

Coordinated Call-Back Queuing eligibility

When a station at a Main originates a network call through a Node, the NCOS of the call originator, the call type, and whether the station is allowed access to the RGA feature is transmitted to the Node. (If an authcode is entered at the Main prior to dialing a network call, the NCOS associated with the authcode is transmitted to the Node.) When received by the Node, this NCOS is used to determine Coordinated Call-Back Queuing (CCBQ) eligibility and is used for the duration of the call, unless further modified by the Authcode Conditionally Last feature [see *Basic and Network Authorization Code description (553-2751-103)*].

The CBQ eligibility tests are performed. In addition, a check is made to ensure that the incoming trunk group from the Main is defined (at the Node) to permit CBQ and that the type allows CBQ. CCBQ is offered to the user at the Main if the eligibility tests are successful. If the tests are unsuccessful, standard call blocking is applied to the call.

As for stations at a Node, the call originator at a Main can invoke RGA upon receipt of ERWT if the originator's NCOS is defined at the Main as CBQ(a) eligible.

The Coordinated Call-Back Queuing offer

The CCBQ offer and acceptance sequences are identical to those for stations at the Node (the SBQ offer). The optional recorded announcement and overflow tone are provided by the Node. The offer cannot be accepted until the recorded announcement is completed and the offer tone is started. In addition, after the recorded announcement is provided, the Node transmits a signal to the Main. This signal indicates that the call is in a state that allows RGA.

When the call originator at the Main activates RGA, the Main assigns a unique "queue identification" number to the call. This number is transmitted to the Node to indicate CCBQ acceptance. At the Main, the call is placed in a holding queue. At the Node, the call (together with the queue identification number) is placed into the trunk queue. The Main-to-Node tie trunk is released.

Coordinated Call-Back Queuing call-back

When an outgoing trunk is seized by the Node for a CCBQ call, slow outpulsing is started to hold the trunk while a call-back is made to the call originator at the Main. The Node seizes an available tie trunk to the Main and transmits the "queue identification" number of the call to the Main. The Main then initiates a call-back to the call originator. Call-back presentation to the call originator is the same as for standard RGA (a CBQ call-back).

> ***Note:*** If no tie trunks to the Main are available, the outgoing trunk is released and can be offered another call. The CCBQ call retains its position in the queue but is not offered another trunk until a tie trunk to the Main becomes available.

When the call originator at the Main accepts the CCBQ call-back, answer supervision is sent from the Main to the Node. The Node then completes the call.

If the call originator is equipped with a 500/2500 set and is engaged in a call when the Node initiates a CCBQ call-back, a signal is transmitted from the Main to the Node. The Node releases the outgoing trunk and places the CCBQ call into a holding queue for 5 min. No attempt is made to seize another outgoing trunk for the call until the holding time expires. This process occurs only once.

If the originating station is still busy after the holding time has expired, the CCBQ is canceled automatically at the Node. No indication of the CCBQ cancellation is given to the call originator.

To prevent the CCBQ call from remaining indefinitely in the holding queue at the Main, the Main sets a time limit of one hour for CCBQ calls. When this time limit expires, the CCBQ call is canceled automatically. (CCBQ call-back to a busy station is the same as for normal RGA).

The call originator at the Main can cancel the CCBQ call at any time. The Node is not aware of the cancellation until the CCBQ call-back is attempted.

Coordinated Call-Back Queuing traffic measurements

Traffic measurement data that is related to usage of the CCBQ feature is accumulated at the Node. The data is reflected in the Incoming Trunk Group measurements (TFN003). The measurements reflect, on an incoming trunk-group basis, the number of CCBQ offers, the number of CCBQ offers that are accepted, the number of CCBQ call-backs that are not answered, and CCBQ cancellations. [Refer to *Traffic measurement formats and output (553-2001-450)*].

Feature interactions

The CCBQ feature interacts with the following Meridian 1 features.

Initialization

If the Main initializes while calls are queued at the Node, CCBQ call-backs from the Node are not answered because the initialization has cleared the holding queue at the Main. The Node treats these calls as call-back-no-answer calls and cancels the CCBQ automatically. If the Node initializes, CCBQ calls in the trunk queue are lost. The Main cannot detect this situation. To prevent calls from remaining indefinitely in the holding queue at the Main, the Main sets a time limit of one hour for CCBQ calls. If a call-back from the Node is not received within one hour, the Main cancels the CCBQ calls automatically.

Attendant functions

Attendants at a Main are not offered CCBQ. Attendant Barge-In on trunks involved in CCBQ operations results in cancellation of the CCBQ call.

Automatic Identification of Outward Dialing and Automatic Number Identification

Automatic Identification of Outward Dialing (AIOD) and Automatic Number Identification (ANI) facilities can be used to complete CCBQ calls from a Node. The outgoing toll call is billed to the access tie trunk rather than to the station at the Main.

Coordinated Dialing Plan

If CCBQ is offered to a Coordinated Dialing Plan (CDP) call as a result of trunk blocking at the Node, the optional recorded announcement is not given before the CCBQ offer tone.

Call Transfer and Conference

Stations at a Main can be offered CCBQ when initiating transfer or conference calls. CCBQ is not offered to 500/2500 stations performing these operations.

Feature limitations

A station at a Main is allowed only 10 to 12 seconds to activate RGA after the CCBQ offer (or ERWT) rather than the 30 seconds allowed for stations at the Node. Accordingly, the time interval of the recorded announcement (if provided) must be properly engineered to ensure that the station at the Main has time to activate CCBQ when it is offered.

The time available to answer a CCBQ call-back at stations at a Main is two to three times less than the time available to stations at the Node, due to the time required for access-trunk seizure and signaling.

Tie trunk groups that are used to provide CCBQ to a Main cannot be arranged for loop-start dial-repeating signaling and cannot have joint far-end disconnect control, as these arrangements do not allow the call to be disconnected after a CCBQ call-back.

Tones and recorded announcements used for CCBQ to users at a Main are provided by the Node. Traffic loads imposed on these facilities at the Node must be considered when Nodes are being engineered.

Call-Back Queuing to Conventional Mains

The Call-Back Queuing to Conventional Mains (CBQCM) feature enables call originators at a Conventional Main to access the CBQ feature at a Node.

Call-Back Queuing to Conventional Mains eligibility

When a station at a Conventional Main originates a network call through a Node, the NCOS assigned to the incoming trunk group is used to determine the CBQCM eligibility. This NCOS, as well as the incoming trunk group, must be defined as CBQ eligible.

> ***Note:*** If the call originates from an Electronic Tie Network (ETN) switch, the Traveling Class Mark (TCM) transmitted to the Node by the ETN switch must be compatible with a CBQ-eligible Facility Restriction Level (FRL) at the serving Node.

The Call-Back Queuing to Conventional Mains offer

The CBQCM offer to a call originator at a Conventional Main consists of an optional recorded announcement, followed by a special (interrupted) dial tone. (The announcement and tones are provided from the Node.) To accept the CBQCM offer, the call originator dials the extension number associated with the telephone that is being used for the call. When the last digit of the extension number is dialed, a confirmation tone (three 256 millisecond bursts of dial tone) is sent from the Node to the call originator. The call is placed in the CBQ at the Node when the call originator goes on-hook.

The CBQCM offer can be refused by going on-hook any time before the last digit of the extension number is dialed or by remaining off-hook for longer than 30 seconds after receipt of the confirmation tone. If the CBQCM is neither accepted nor rejected within 30 seconds, the caller is given overflow tone (from the Node) and the call is disconnected.

Call-Back Queuing to Conventional Mains call-back

When an outgoing trunk becomes available at the Node, it is seized, and slow outpulsing is started. The Node then seizes a tie trunk to the Conventional Main and outpulses the extension number of the call originator. The call originator must answer the call-back before slow outpulsing is completed; otherwise, the callback is canceled and the outgoing trunk is released.

> ***Note:*** If no tie trunks are currently available to the Conventional Main, the Node releases the outgoing trunk. The CBQCM call retains its position in the queue but is not offered another outgoing trunk until a tie trunk to the Conventional Main becomes available.

When the call originator answers the CBQCM call-back, answer supervision must be transmitted from the Conventional Main to the Node. Upon receipt of answer supervision from the Conventional Main, the Node transmits a tone (three 256 millisecond bursts of dial tone) to notify the call originator that the call is a CBQCM call-back, and completes the call.

If the call originator's station is busy, or the originator does not answer when the call-back is placed, the Node places the call in a suspended state for 5 min. After 5 min, another call-back is attempted if the outgoing trunk is free. If the station that originated the call is still busy or does not answer, the Node cancels the call.

No provision is made for CBQCM cancellation by a call originator at a Conventional Main. Once the CBQCM offer is accepted, the call remains in the queue until the Node initiates a call-back.

CBQCM traffic measurements

Traffic measurement data that is related to usage of the CBQCM feature is accumulated at the Node. This data then becomes part of the Incoming Trunk Group Measurements (TFN003). The data reflects on an incoming trunk group basis the number of the CBQCM offers and acceptances, the average time in CBQCM, the number of blocked CBQCM call-backs, and the number of CBQCM call-backs not answered.

Feature limitations

Station users at Conventional Mains cannot activate RGA to refuse expensive routes after the ERWT is given.

The Node seizes the same tie trunk group that was used to initiate the CBQCM for the CBQCM call-back. Thus, these trunk groups must be two-way (incoming/outgoing).

Conventional Mains must provide answer supervision on tie trunks connected to the Node. These switches must also permit transmission or repetition of station dial pulses for CBQCM operation. This feature cannot be used with systems that operate in senderized mode. Operation may require adjustment of the interdigit timeout on systems that employ simulated cut-through operation.

Conventional Mains must not allow CBQCM call-back calls to be modified by Call Transfer or Call Forward. Such call modification can result in the tie line not being released upon call completion.

The station user at a Conventional Main must dial the internal DN of his or her station to accept a CBQCM offering, rather than the CDPDN, if the Node is equipped for the Coordinated Dialing Plan.

Tie trunk groups that are used to provide CBQCM to a Conventional Main cannot be arranged for loop-start dial-repeating signaling and cannot have joint far-end disconnect control, as these arrangements do not allow the call to be disconnected after a CBQCM call-back.

Because tones and recorded announcements for CBQCM are provided by the Node, traffic loads on these facilities at the Node must be considered when Nodes are being engineered.

Coordinated Call-Back Queuing Against Mains

The Coordinated Call-Back Queuing Against Mains (CCBQAM) feature enables stations at Nodes to be offered CBQ for network calls that are blocked at a Main. When facilities become available at the Main, the call originator at the Node is alerted by a call-back from the Main. The CCBQAM otherwise functions identically to CCBQ at the Node.

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Meridian 1

Network Queuing

Description

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